



1600

0

0800

1645

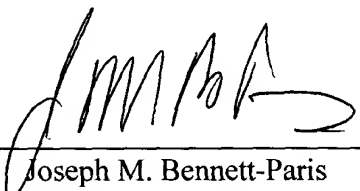
1645

U.S.S.N. 09/880,710
06572.105018 ANA 1006 US
Page 3

CERTIFICATE OF MAILING (37 CFR 1.8a)

I hereby certify that this Information Disclosure Statement and accompanying articles are being deposited with the United States Postal Service on the date shown below with sufficient postage as first-class mail in a box addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

#5
1.90
5/6/02



Joseph M. Bennett-Paris

Date: Dec 19, 2001

RECEIVED
JAN 04 2002
TECH CENTER 1600/2900

RECEIVED
MAY 01 2002
TECH CENTER 1600/2900



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: **Manolagas *et al.***

Serial No.: **09/880,710**

Art Unit:

Filed: **June 13, 2001**

Examiner:

For: **METHODS OF DISSOCIATING NONGENOTROPIC FROM GENOTROPIC ACTIVITY
OF STEROID RECEPTORS**

Assistant Commissioner for Patents
Box IDS
Washington, DC 20231

RECEIVED

MAY 01 2002

INFORMATION DISCLOSURE STATEMENT TRANSMITTAL

TECH CENTER 1600/2900

Sir:

Pursuant to the duty of disclosure under 37 CFR §§ 1.56, 1.97 and 1.98, Applicants cite the publications listed on the accompanying PTO-1449. Copies of all listed references are enclosed. This Information Disclosure Statement is filed without fee as it is filed before a first official action on the merits. Applicants also list the following U.S. patent applications which are co-pending within the U.S. Patent and Trademark Office.

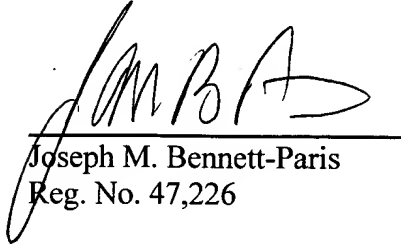
SERIAL NUMBER	APPLICATION TITLE	FILING DATE	INVENTORS
09/413,958	In Vitro and In Vivo Models for Screening Compounds to Prevent Glucocorticoid-Induced Bone Destruction	10/07/99	Manolagas <i>et al.</i>
09/413,785	Methods for Screening for Apoptosis-Controlling Agents for Bone Anabolic Therapies and Uses Thereof	10/07/99	Manolagas <i>et al.</i>
09/443,841	Increasing Bone Strength with Selected Bisphosphonates	11/19/99	Manolagas <i>et al.</i>
09/414,091	Methods and Compositions for Increasing Bone Mass	10/07/99	Manolagas <i>et al.</i>

If the Examiner determines a fee is required, the Commissioner is authorized to charge any requisite fees associated with this paper to Deposit Account No. 11-0980.



U.S.S.N. 09/880,710
06572.105018 ANA 1006 US
Page 2

Respectfully submitted,


Joseph M. Bennett-Paris
Reg. No. 47,226

KING & SPALDING
191 Peachtree Street
Atlanta, GA 30303
404-572-4628 (Telephone)
404-572-5145 (Facsimile)

RECEIVED
JAN 04 2002
TECH CENTER 1600/2900

RECEIVED
MAY 01 2002
TECH CENTER 1600/2900

Under the Paperwork Reduction Project of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Submitted for form 1449/PTO				<div style="text-align: center;"> <p>Complete if Known</p> <table border="1"> <tr> <td>Application Number</td> <td>09/880,710</td> </tr> <tr> <td>Filing Date</td> <td>June 13, 2001</td> </tr> <tr> <td>First Named Inventor</td> <td>Manolagas <i>et al.</i></td> </tr> <tr> <td>Group Art Unit</td> <td></td> </tr> <tr> <td>Attorney Docket Number</td> <td>ANA 1007 (06572.105018)</td> </tr> </table> </div>		Application Number	09/880,710	Filing Date	June 13, 2001	First Named Inventor	Manolagas <i>et al.</i>	Group Art Unit		Attorney Docket Number	ANA 1007 (06572.105018)
Application Number	09/880,710														
Filing Date	June 13, 2001														
First Named Inventor	Manolagas <i>et al.</i>														
Group Art Unit															
Attorney Docket Number	ANA 1007 (06572.105018)														
<p>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</p>				<div style="text-align: right;"> <p>TECH CENTER 16</p> <p>JAN 04 2002</p> </div>											
Sheet	1	of	12												

RECEIVED
JAN 04 2011
TECH CENTER 161012900

U.S. PATENT DOCUMENTS						
Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pgs, Clmns, Lns, Where Relevant Passages/Relevant Figs Appear
		Number (if known)	Kind Code			
	AA	4,522,811		Eppstein <i>et al.</i>	06/11/1985	
	AB	5,071,773		Evans <i>et al.</i>	12/10/1991	
	AC	5,298,429		Evans <i>et al.</i>	03/20/1994	
	AD	5,362,720		Labrie	11/08/1994	
	AE	5,506,102		McDonnell	04/09/1996	RECEIVED
	AF	5,545,634		Labrie	08/13/1996	
	AG	5,563,036		Peterson <i>et al.</i>	10/08/1996	MAY 01 2000
	AH	5,567,695		Labrie	10/22/1996	
	AI	5,639,597		Lauffer <i>et al.</i>	06/17/1997	TECH CENTER 160
	AJ	5,643,720		Pfahl <i>et al.</i>	07/01/1997	
	AK	5,702,914		Evans <i>et al.</i>	12/30/1997	
	AL	5,834,213		O'Malley <i>et al.</i>	11/10/1998	
	AM	5,843,934		Simpkins	12/01/1998	
	AN	5,846,960		Labrie	12/08/1998	
	AO	5,854,004		Czernilofsky <i>et al.</i>	12/29/1998	
	AP	5,859,001		Simpkins <i>et al.</i>	01/12/1999	
	AQ	5,863,733		Foulkes <i>et al.</i>	01/26/1999	
	AR	5,877,007		Housey	03/02/1999	
	AS	6,025,539		Lee <i>et al.</i>	02/15/2000	
	AT	6,060,238		Dixit	05/09/2000	

RECEIVED

MAY 01 2012

TECH CENTER 1600/2900

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box

PTO/SB/08A (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Submitted for form 1449/PTO		<div style="text-align: center;"> INFORMATION DISCLOSURE STATEMENT BY APPLICANT </div>		<div style="text-align: center;"> Complete if Known </div>	
		<div style="text-align: center;"> Application Number </div>		09/880,710	
		<div style="text-align: center;"> Filing Date </div>		June 13, 2001	
		<div style="text-align: center;"> First Named Inventor </div>		Man lagas et al.	
		<div style="text-align: center;"> Group Art Unit </div>			
		<div style="text-align: center;"> Attorney Docket Number </div>		ANA 1007 (06572.105018)	
Sheet	2	of	12		

U.S. PATENT DOCUMENTS								
Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pgs, Clmns, Lns, Where Relevant Passages/Relevant Figs Appear		
		Number	Kind Code (if known)					
FOREIGN PATENT DOCUMENTS								
Examiner Initials *	Cite No. ¹	Foreign Patent Document			Date of Publication of Cited Document DD-MM-YYYY	Country	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number	Kind Code ² (if known)				
	BA	WO	98/22113	A1	28/05/1998	PCT		
	BB	WO	98/31381	A1	23/07/1998	PCT		
	BC	WO	99/54728	A3	28/10/1999	PCT		
	BD	WO	99/61044	A1	02/12/1999	PCT		
	BE	WO	00/19823	A1	13/04/2000	PCT		
	BF	WO	00/20007	A1	13/04/2000	PCT		
	BG	WO	00/20625	A1	13/04/2000	PCT		
	BH	WO	00/37681	A1	20/06/2000	PCT		

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

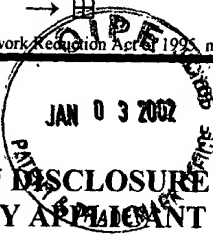
¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

PTO/SB/08A (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Submitted for form 1449/PTO		<div style="text-align: center;">  </div>		<div style="text-align: center;"> Complete if Known </div>	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Application Number		09/880,710	
		Filing Date		June 13, 2001	
		First Named Inventor		Manolagas <i>et al.</i>	
		Group Art Unit			
Sheet	3	of	12	Attorney Docket Number	ANA 1007 (06572.105018)

RECEIVED
 JAN 04 2002
 TECH CENTER 1600/2000

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	CA	ARONICA, S.M., <i>et al.</i> , "Estrogen Action Via The cAMP Signaling Pathway: Stimulation of Adenylate Cyclase and cAMP-regulated Gene Transcription," <i>Proc. Natl. Acad. Sci. U.S.A.</i> , (1994), Vol. 91, pp. 8517-8521.	
	CB	LANDER, <i>et al.</i> , "Initial Sequencing and Analysis of the Human Genome," <i>Nature</i> , (2001), Vol. 409, pp. 860-921.	
	CC	BELLIDO, T.G., <i>et al.</i> , "Demonstration of Estrogen and Vitamin D Receptors in Bone Marrow-Derived Stromal Cells: Up-Regulation of the Estrogen Receptor by 1,25-Dihydroxyvitamin-D ₃ ," <i>Endocrinology</i> , (1993), Vol. 133, pp. 553-562.	
	CD	BELLIDO, <i>et al.</i> , "Regulation of Interleukin-6, Osteoclastogenesis, and Bone Mass by Androgens - The Role of the androgen Receptor," <i>J. Clin. Invest.</i> , (1995), Vol 95, pp. 2886-2895.	
	CE	BEN-HUR, H.G., <i>et al.</i> , "Localization of Estrogen Receptors in Long Bones and Vertebrae of Human Fetuses," <i>Calcif. Tissue Int.</i> , (1993), Vol. 53, pp. 91-96.	
	CF	BENZ, D.J., <i>et al.</i> , "Estrogen Binding and Estrogenic Responses in Normal Human Osteoblast-like Cells," <i>J. Bone Miner. Res.</i> , (1991), Vol. 6, pp. 531-541.	
	CG	BENZ, D.J. <i>et al.</i> , "High-Affinity Androgen Binding and Androgenic Regulation of $\alpha_1(I)$ -Procollagen and Transforming Growth Factor- β Steady State Messenger Ribonucleic Acid Levels in Human Osteoblast-Like Osteosarcoma Cells*," <i>Endocrinology</i> , (1991), Vol. 128, pp. 2723-2730.	
	CH	BILEZIKIAN, J.P., <i>et al.</i> , "Increased Bone Mass as a Result of Estrogen Therapy in a Man with Aromatase Deficiency," <i>N. Engl. J. Med.</i> , (1998), Vol. 339, pp. 599-603.	
	CI	BILEZIKIAN, John P., "Estrogens and Postmenopausal Osteoporosis: Was Albright Right After All?," <i>Journal of Bone and Mineral Research</i> , (November 5, 1998), Vol. 13, No. 5, pp. 774-776.	
	CJ	BINDAL, R.D., <i>et al.</i> , "11 β -Chloromethyl-[³ H]Estradiol-17 β : A Very High Affinity, Reversible Ligand for the Estrogen Receptor," <i>J. Steroid Biochem.</i> , (1987), Vol. 28, 361-370.	
	CK	BRAIDMAN, I., <i>et al.</i> , "Preliminary Evidence for Impaired estrogen receptor- α Protein Expression in Osteoblasts and Osteocytes From Men With Idiopathic Osteoporosis," <i>Bone</i> , (2000), Vol. 26, pp. 423-427.	

RECEIVED
 MAY 01 2002
 TECH CENTER 1600

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Submitted for form 1449/PTO		<div style="text-align: center;"> JAN 03 2002 PATENT & TRADEMARK OFFICE RECEIVED </div>		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Application Number		09/880,710	
		Filing Date		June 13, 2001	
		First Named Inventor		Manolagas <i>et al.</i>	
		Group Art Unit			
Sheet 4 of 12		Attorney Docket Number		ANA 1007 (06572.105018)	

RECEIVED
 JAN 04 2002
 TECH CENTER 1600/2002

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	DA	CARANI, C., <i>et al.</i> , "Effect of Testosterone and Estradiol in a Man with Aromatase Deficiency," <i>N. Engl. J. Med.</i> , (1997), Vol. 337, pp. 91-95.	
	DB	CASTORIA, G., <i>et al.</i> , "Non-Transcriptional Action of Oestradiol and Progestin Triggers DNA Synthesis," <i>EMBO J.</i> , (1999), Vol. 18, pp. 2500-2510.	
	DC	CHAMBLISS, <i>et al.</i> , "Estrogen Receptor α and Endothelial Nitric Oxide Synthase Are Organized Into a Functional Signaling Module in Caveolae," <i>Circ. Res.</i> , (2000), Vol. 87, pp. E44-E52.	
	DD	CHANG, C. <i>et al.</i> , "dissection of the LXXLL Nuclear Receptor-Coactivator Interaction Motif Using Combinatorial Peptide Libraries: Discovery of Peptide Antagonists of Estrogen Receptors α and β ," <i>Mol. Cell Biol.</i> , (1999), Vol. 19, 8226-8239.	
	DE	CHEN, Z., <i>et al.</i> , "Estrogen Receptor α Mediates The Nongenomic Activation of Endothelial Nitric Oxide Synthase by Estrogen," <i>J. Clin. Invest.</i> , (1999), Vol. 103, pp. 401-406.	
	DF	COLLINS, P. and C. WEBB, "Estrogen hits the surface," <i>Nat. Med.</i> , (1999), Vol. 5, pp. 1130-1131.	
	DG	COUSE, J.F. and K.S. KORACH, "Estrogen Receptor Null Mice: What Have We Learned and Where will They Lead Us?" <i>Endocr. Rev.</i> , (1999), Vol. 20, pp. 358-417.	
	DH	COXAM, V. <i>et al.</i> , "Effects of Dihydrotestosterone Alone and Combined with Estrogen on Bone Mineral Density, Bone Growth, and Formation Rates in Ovariectomized Rats," <i>Bone</i> , (1996), Vol. 19, pp. 107-114.	
	DI	DEPRIMO, S.E., <i>et al.</i> , "Human Placental Alkaline phosphatase as a Histochemical Marker of Gene Expression in Transgenic Mice," <i>Transgenic. Res.</i> , (1996), Vol. 5, pp. 459-466.	
	DJ	EKENA, K., <i>et al.</i> , "Identification of Amino Acids in the Hormone Binding Domain of the Human Estrogen Receptor Important in Estrogen Binding*," <i>J. Biol. Chem.</i> , (1996), Vol. 271, pp. 20053-20059.	
	DK	EKENA, K., <i>et al.</i> , "Different Residues of the Human Estrogen Receptor Are Involved in the Recognition of Structurally Diverse Estrogens and Antiestrogens*," <i>J. Biol. Chem.</i> , (1997), Vol. 272, pp. 5069-5075.	
	DL	ENDO, H., H. <i>et al.</i> , "Rapid Activation of MAP Kinase by Estrogen in the Bone Cell Line," <i>Biochem. Biophys. Res. Commun.</i> , (1997), Vol. 235, pp. 99-102.	

RECEIVED
 MAY 01 2002

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐

PTO/SB/08A (08-00)
 oved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Submitted for form 1449/PTO		<div style="text-align: center;"> JAN 03 2002 RECEIVED TECH CENTER 1800/2690 </div>	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Complete if Known	
		Application Number	09/880,710
		Filing Date	June 13, 2001
		First Named Inventor	Manolagas <i>et al.</i>
		Group Art Unit	
Sheet	5	of	12
		Attorney Docket Number	ANA 1007 (06572.105018)

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	EA	ERIKSEN, E.F., <i>et al.</i> , "Evidence of Estrogen Receptors in Normal Human Osteoblast-Like Cells," <i>Science</i> , (1988), Vol. 241, pp. 84-86.	
	EB	ERNST, M., <i>et al.</i> , "Functional Estrogen Receptors in Osteoblastic Cells Demonstrated by Transfection with a Reporter Gene Containing an Estrogen Response Element," <i>Mol. Endocrinol.</i> , (1991), Vol. 5, pp. 1597-1606.	
	EC	FALKENSTEIN, <i>et al.</i> , "Multiple Actions of Steroid Hormones-A Focus on Rapid, Nongenotropic Effects," <i>Pharmacol. Rev.</i> , (2000), Vol. 52, pp. 513-555.	
	ED	FRISCH, S.M. and RUOSLAHTI, E., "Integrins and anoikis," <i>Curr. Opin. Cell Biol.</i> , (1997), Vol. 9, pp. 701-706.	
	EE	GASPAR, M.L., <i>et al.</i> , "A Single Base Deletion in The <i>Tfm</i> Androgen Receptor Gene Creates A Short-Lived Messenger RNA that Directs Internal Translation Initiation," <i>Proc. Natl. Acad. Sci. U.S.A.</i> , (1991), Vol. 88, pp. 8606-8610.	
	EF	GOSSEN, M., <i>et al.</i> , "Transcriptional Activation by Tetracyclines in Mammalian Cells," <i>Science</i> , (1995), Vol. 268, pp. 1766-1769.	
	EG	GOSSEN, M., <i>et al.</i> , "Control of Gene activity in Higher Eukaryotic Cells by Prokaryotic Regulatory Elements," <i>Trends Biochem Sci.</i> , (1993), Vol. 18, pp. 471-475.	
	EH	GU, H., <i>et al.</i> , "Deletion of a DNA Polymerase β Gene Segment in T Cells Using Cell Type-Specific Gene Targeting," <i>Cell</i> , (1993), Vol. 73, pp. 1155-1164.	
	EI	GU, H., <i>et al.</i> , "Deletion of a DNA Polymerase β Gene Segment in T Cells Using Cell Type-Specific Gene Targeting," <i>Science</i> , (1994), Vol. 265, pp. 103-106.	
	EJ	HUGHES, D.E. <i>et al.</i> , "Estrogen Promotes Apoptosis of Murine Osteoclasts Mediated by TGF- β ," <i>Nat. Med.</i> , (1996), Vol. 2, pp. 1132-1136.	
	EK	INCE, B.A., <i>et al.</i> , "Powerful Dominant Negative Mutants of the Human Estrogen Receptor*," <i>J. Biol. Chem.</i> , (1993), Vol. 268, pp. 14026-14032.	
	EL	JILKA, R.L., <i>et al.</i> , "Osteoblast Programmed Cell Death (Apoptosis): Modulation by Growth Factors and Cytokines," <i>J. Bone Miner Res.</i> , (1998), Vol. 13, pp. 793-802.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Submitted for form 1449/PTO		<div style="text-align: center;"> INFORMATION DISCLOSURE STATEMENT BY APPLICANT </div>		<div style="text-align: center;"> Complete if Known </div>	
		<div style="text-align: center;"> JAN 03 2002 </div>		Application Number	09/880,710
				Filing Date	June 13, 2001
				First Named Inventor	Manolagas <i>et al.</i>
				Group Art Unit	
				Attorney Docket Number	ANA 1007 (06572.105018)
Sheet	6	of	12		

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	FA	JILKA, R.L., <i>et al.</i> , "Increased Bone Formation by Prevention of Osteoblast Apoptosis with Parathyroid Hormone," <i>J. Clin. Invest.</i> , (1999), Vol. 104, pp. 439-446.	
	FB	KAMEDA, T., <i>et al.</i> , "Estrogen Inhibits Bone Resorption by Directly Inducing Apoptosis of the Bone-resorbing Osteoclasts," <i>J. Exp. Med.</i> , (1997), Vol. 186, pp. 489-495.	
	FC	KATO, Y., <i>et al.</i> , "Establishment of an Osteocyte-like Cell Line, MLO-Y4," <i>J. Bone Miner. Res.</i> , (1997), Vol. 12, pp. 2014-2023	
	FD	KATZENELLENBOGEN B.S., <i>et al.</i> , "Stilbestrols and Stilbestrol Derivatives: Estrogenic potency and Temporal Relationships Between Estrogen Receptor Binding and Uterine Growth," <i>Mol. Cell Endocrinol.</i> , (1978), Vol. 10, pp. 103-113.	
	FE	KATZENELLENBOGEN B.S., <i>et al.</i> , "Estrogen and Antiestrogen Action in Reproductive Tissues and Tumors," <i>Prog. Horm. Res.</i> , (1979), Vol. 35, pp. 259-300.	
	FF	KENNEDY, J. <i>et al.</i> , "Immunofluorescent Localization of Estrogen receptor- α in Growth Plates of Rabbits, but Not in Rats, at Sexual Maturity," <i>Bone</i> , (1999), Vol. 24, pp. 9-16.	
	FG	KLEIN, C.E., <i>et al.</i> , "Integrin $\alpha_2\beta_1$ Is Upregulated in Fibroblasts and Highly Aggressive Melanoma Cells in Three-Dimensional Collagen Lattices and Mediates the Reorganization of Collagen I Fibrils," <i>J. Cell Biol.</i> , (1991), Vol. 115, pp. 1427-1436.	
	FH	KOMM, B.S. <i>et al.</i> , "Estrogen Binding, receptor mRNA, and Biologic Response in Osteoblast-Like Osteosarcoma Cells," <i>Science</i> , (1988), Vol. 241, pp. 81-84.	
	FI	KRAUS, <i>et al.</i> , "Determinants for the Repression of Estrogen receptor Transcriptional Activity by Ligand-Occupied Progestin Receptors," <i>J. Steroid Biochem. Mol. Biol.</i> , (1997), Vol. 63, pp. 175-188.	
	FJ	KÜHN, <i>et al.</i> , "Inducible Gene Targeting in Mice," <i>Science</i> , (1995), Vol. 269, pp. 1427-1429.	
	FK	KUSEC, V. <i>et al.</i> , "Localization of Estrogen Receptor- α in Human and Rabbit Skeletal Tissues," <i>J. Clin. Endocrinol. Metab.</i> , (1998), Vol. 83, pp. 2421-2428.	
	FL	LAKSO, M., <i>et al.</i> , "Targeted Oncogene Activation by Site-Specific Recombination in Transgenic Mice," <i>Proc. Natl. Acad. Sci. U.S.A.</i> , (1992), Vol. 89, pp. 6232-6236.	
	FM	LE GOFF <i>et al.</i> , "Phosphorylation of the Human Estrogen Receptor," <i>J. Biol. Chem.</i> , (1994), Vol. 269, pp. 4458-4466.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

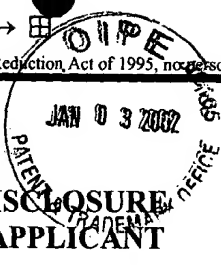
Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box →

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Submitted for form 1449/PTO		<div style="text-align: center;">  </div>		<div style="text-align: center;"> Complete if Known </div>	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Application Number		09/880,710	
		Filing Date		June 13, 2001	
		First Named Inventor		Manolagas <i>et al.</i>	
		Group Art Unit			
Sheet	7	of	12	Attorney Docket Number	ANA 1007 (06572.105018)

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	GA	LEA, C.K. and A.M. FLANAGAN, "Ovarian androgens protect against bone loss in rats made oestrogen deficient by treatment with ICI 182,780," <i>J. Endocrinol.</i> , (1999), Vol. 160, 111-117.
	GB	LECKA-CZERNIK, B., <i>et al.</i> , "," <i>J. Cell Biochem.</i> , (1999), Vol. 74, pp. 357-371.
	GC	LETTER TO THE EDITOR, "A Unified Nomenclature System for the Nuclear Receptor Superfamily," <i>Cell</i> , (1999), Vol. 97, pp. 161-163.
	GD	LI, H. <i>et al.</i> , "Cytochrome c Release and Apoptosis Induced by Mitochondrial Targeting of Nuclear Orphan Receptor TR3," <i>Science</i> , (2000), Vol. 289, pp. 1159-1164.
	GE	LIEBERHERR, M., B. <i>et al.</i> , "Cell signaling and Estrogens in Female Rat Osteoblasts: A Possible Involvement of Unconventional Nonnuclear Receptors," <i>J. Bone Miner. Res.</i> , (1993), Vol. 8, pp. 1365-1376.
	GF	MAGGIOLINI, M., <i>et al.</i> , "Adrenal Androgens Stimulate the Proliferation of breast Cancer Cells as Direct Activators of Estrogen Receptor α^1 ," <i>Cancer Res.</i> , (1999), Vol 59, pp. 4864-4869.
	GG	MANOLAGAS, S.C., "Birth and Death of Bone Cells: basic regulatory Mechanisms and Implications for the pathogenesis and Treatment of Osteoporosis," <i>Endocr. Rev.</i> , (2000), Vol. 21, pp. 115-137.
	GH	MANSOUR, S.J., <i>et al.</i> , "Transformation of Mammalian Cells by Constitutively active MAP Kinase Kinase," <i>Science</i> , (1994), Vol. 265, pp. 966-970.
	GI	MAO, X., <i>et al.</i> , "Improved Reporter Strain for Monitoring Cre Recombinase-mediated DNA Excisions in Mice," <i>Proc. Natl. Acad. Sci. U.S.A.</i> , (1999), Vol. 96, pp. 5037-5042.
	GJ	MCEWEN, B.S. and ALVES, S.E., "Estrogen Actions in the Central Nervous System*," <i>Endocr. Rev.</i> , (1999), Vol. 20, pp. 279-307.
	GK	MCINERNEY <i>et al.</i> , "Different Regions in Activation function-1 of the Human Estrogen Receptor Required for Antiestrogen- and Estradiol-dependent Transcription Activation*," <i>J. Biol. Chem.</i> , (1996), Vol. 271, pp. 24172-24178.
	GL	MCKENNA, <i>et al.</i> , "Nuclear Receptor Coregulators: Cellular and Molecular Biology*," <i>Endocr. Rev.</i> , (1999), Vol. 20, pp. 321-344.
	GM	MIGLIACCIO A., <i>et al.</i> , "Steroid-Induced Androgen Receptor-Oestradiol Receptor β -Src Complex Triggers Protstate Cancer Cell Proliferation," <i>EMBO J.</i> , (2000), Vol. 19, pp. 5406-5417.

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box →

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Submitted for form 1449/PTO				Complete if Known Application Number 09/880,710 Filing Date June 13, 2001 First Named Inventor Manolagas et al. Group Art Unit Attorney Docket Number ANA 1007 (06572.105018)	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				RECEIVED JAN 04 2001 TECH CENTER 1600/2900	
Sheet	8	of	12		

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	HA	MONAGHAN, B.A., et al., "BASIC SCIENCE AND PATHOLOGY - Estrogen Receptors in Fracture Healing," <u>Clin. Orthop.</u> , (1992), pp. 277-280.	
	HB	MONTANO, M.M. and KATZENELLENBOGEN, B.S., "The Quinone Reductase Gene: A Unique Estrogen Receptor-Regulated Gene That is Activated by Antiestrogens," <u>Proc. Natl. Acad. Sci. U.S.A.</u> , (1997), Vol. 94, pp. 2581-2586.	
	HC	MONTANO, M.M., et al., "The Carboxy-terminal F domain of the Human Estrogen Receptor; Role in the Transcriptional Activity of the Receptor and the Effectiveness of Antiestrogens as Estrogen Antagonists," <u>Mol. Endocrinol.</u> , (1995), Vol. 9, pp. 814-825.	
	HD	MORRISON, J.F., "The Behavior and Significance of Slow-Binding Enzyme Inhibitors," <u>Adv. Enzymol. Relat. Areas. Mol. Biol.</u> , (1988), Vol. 61, pp. 201-301.	
	HE	MURPHY, L. and P.J. O'SHAUGHNESSY, "Testicular steroidogenesis in the testicular feminized (<i>Tfm</i>) MOUSE: LOSS OF 17 α -hydroxylase activity," <u>J. Endocrinol.</u> , (1991), Vol. 131, pp. 443-449.	
	HF	NAWAZ, Z., "The Pure Antiestrogen ICI 182,780 Inhibits Progesterin-induced Transcription ¹ ," <u>Cancer Res.</u> , (1999), Vol. 59, pp. 372-376.	
	HG	NILSSON, L.O., et al., "Demonstration of Estrogen receptor- β Immunoreactivity in Human Growth Plate Cartilage," <u>J. Clin. Endocrinol. Metab.</u> , (1999), Vol. 84, pp. 370-373.	
	HH	NOBLE, B.S. and REEVE, J., "At the Cutting Edge Osteocyte function, osteocyte death and bone fracture resistance," <u>Mol. Cell Endocrinol.</u> , (2000), Vol. 159, pp. 7-13.	
	HI	NORFLEET, A.M., et al., "Estrogen receptor- α Detected on the Plasma Membrane of Aldehyde-Fixed GH ₃ /B6/F10 Rat Pituitary Tumor Cells by Enzyme-Linked Immunocytochemistry*," <u>Endocrinology</u> , (1999), Vol. 140, pp. 3805-3814.	
	HJ	NORRIS, J.D., et al., "Peptide Antagonists of the Human Estrogen Receptor," <u>Science</u> , (1999), Vol. 285, 744-746.	
	HK	OKAMOTO, T., A., et al., "Caveolins, a Family of Scaffolding Proteins for Organizing "Preassembled Signaling Complexes" at the Plasma Membrane*," <u>J. Biol. Chem.</u> , (1998), Vol. 273, pp. 5419-5422.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Submitted for form 1449/PTO				Complete if Known Application Number 09/880,710 Filing Date June 13, 2001 First Named Inventor Manolagas et al. Group Art Unit Attorney Docket Number ANA 1007 (06572.105018)	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				RECEIVED JAN 04 2002 TECH CENTER 1600/2900	
Sheet	9	of	12		

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	IA	ORBAN, P.C., et al., "Tissue- and site-specific DNA recombination in transgenic Mice," <u>Proc. Natl. Acad. Sci. U.S.A.</u> , (1992), Vol. 89, pp. 6861-6865.	
	IB	OURSLER, M.J., et al., "Oestrogen Effects on Osteoblasts and Osteoclasts," <u>Ann. Med.</u> , (1993), Vol. 25, pp. 361-371.	
	IC	OZ, O.K. et al., "Bone Has a Sexually Dimorphic Response to Aromatase Deficiency," <u>J. Bone Miner. Res.</u> , (2000), Vol. 15, pp. 507-514.	
	ID	PASPARAKIS, M., et al., "Immune and Inflammatory Responses in TNF α -deficient Mice: A Critical Requirement for TNF α in the Formation of Primary B Cell Follicles, Follicular Dendritic Cell Networks and Germinal Centers, and in the maturation of the Humoral Immune Response," <u>J. Exp. Med.</u> , (1996), Vol. 184, pp. 1397-1411.	
	IE	PIETRAS, R.J. and C.M. SZEGO, "Cell membrane estrogen receptors resurface," <u>Nat. Med.</u> , (1999), Vol. 5, p. 1330.	
	IF	PLOTKIN, L. et al., "Prevention of Osteocyte and Osteoblast Apoptosis by Bisphosphonates and Calcitonin," <u>J. Clin. Invest.</u> , (1999), Vol. 104, pp. 1363-1374.	
	IG	POTTRATZ, et al., "17 β -Estradiol Inhibits Expression of Human Interleukin-6 Promoter-Reporter Constructs by A Receptor-dependent Mechanism," <u>J. Clin. Invest.</u> , (1994), Vol. 93, pp. 944-950.	
	IH	RAY, P., et al., "Regulated Overexpression of Interleukin 11 in the Lung," <u>J. Clin. Invest.</u> , (1997), Vol. 100, p. 2501-2511.	
	II	RAYNAUD J.P., et al., "11 β -Methoxy-17-ethynyl-1,3,5(10)-estratriene-3,17, β -diol (Moxestrol), a Tag for Estrogen Receptor Binding Sites in Human Tissues" <u>Cancer Res.</u> , (1978), Vol. 38, pp. 3044-3050.	
	IJ	RAZANDI, M., et al., "Cell Membrane and Nuclear Estrogen receptors (ERs) Originate from a Single Transcript: Studies of ER α and ER β Expressed in Chinese Hamster Ovary Cells," <u>Mol. Endocrinol.</u> , (1999), Vol. 13, pp. 307-319.	
	IK	RIGGS, B.L., et al., "A Unitary Model for Involutional Osteoporosis: Estrogen Deficiency Causes Both Type I and Type II Osteoporosis in Postmenopausal Women and Contributes to Bone Loss in Aging Men," <u>J. Bone Miner. Res.</u> , (1998), Vol. 13, pp. 763-776.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box

PTO/SB/08A (08-00)

proved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Submitted for form 1449/PTO				Complete if Known Application Number 09/880,710 Filing Date June 13, 2001 First Named Inventor Manolagas et al. Group Art Unit Attorney Docket Number ANA 1007 (06572.105018)	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT					
Sheet	10	of	12		

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	JA	ROBERTSON, et al., "Germ-line transmission of genes introduced into cultured pluripotent cells by retroviral vector," <i>Nature</i> , (1986), Vol. 323, pp. 445-448.	
	JB	SCHLEGEL, A., et al., "Caveolin-1 Potentiates Estrogen Receptor α (ER α) Signaling," <i>J. Biol. Chem.</i> , (1999), Vol. 274, pp. 33551-33556.	
	JC	SCHODIN, D.J. et al., "Analysis of Mechanisms That Determine Dominant Negative Estrogen Receptor Effectiveness*," <i>J. Biol. Chem.</i> , (1995), Vol. 270, pp. 31163-31171.	
	JD	SCHWARTZ, B.D., et al., "Session OR23: Clinical Oral Session Bone-Calcium Parathyroid Clinical," <i>Endocrine Society 81st Annual Meeting 93 (Abstr)</i> , (1999).	
	JE	SIMONCINI, T., et al., "Interaction of oestrogen receptor with the regulatory subunit of phosphatidylinositol-3OH kinase," <i>Nature</i> , (2000), Vol. 407, pp. 538-541.	
	JF	SMITH, E.P., et al., "Estrogen Resistance Caused by a Mutation in the Estrogen-Receptor Gene in a Man," <i>N. Engl. J. Med.</i> , (1994), Vol. 331, pp. 1056-1061.	
	JG	SOLOMON, K.R., et al., "Caveolin-Enriched Membrane Signaling complexes in Human and Murine Osteoblasts," <i>J. Bone Miner. Res.</i> , (2000), Vol. 15, pp. 2380-2390.	
	JH	SOLOMON, K.R., et al., "Caveolae in Human and Murine Osteoblasts," <i>J. Bone Miner. Res.</i> , (2000), Vol. 15, pp. 2391-2401.	
	JI	SORINAO, et al., "Targeted Disruption of the c-src Proto-Oncogene Leads to Osteopetrosis in Mice," <i>Cell</i> , (1991), Vol. 64, pp. 693-702.	
	JJ	SUN, J., et al., "Novel Ligands that Function as Selective Estrogens or antiestrogens for Estrogen Receptor- α or Estrogen Receptor- β *," <i>Endocrinology</i> , (1999), Vol. 140, pp. 800-804.	
	JK	SZEDLACSEK, S.E., "Kinetics of Slow and Tight-Binding Inhibitors," <i>Methods Enzymol.</i> , (1995), Vol. 249, pp. 144-180.	
	JL	TOBIAS, et al., "5 α -Dihydrotestosterone Partially Restores Cancellous Bone Volume in Osteopenic Ovariectomized Rats," <i>Am. J. Physiol. Endocrinol. Metab.</i> , (1994), Vol. 267, pp. E853-E859	
	JM	TORAN-ALLERAND, C.D., et al., "Novel Mechanisms of estrogen Action in the Brain: New Players in an Old Story," <i>Front. Neuroendocrinol.</i> , Vol. 20, pp. 97-121.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box

PTO/SB/08A (08-00)
 Approved for use through 10/31/2002. OMB 0651-0031
 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Submitted for form 1449/PTO		Complete if Known Application Number 09/880,710 Filing Date June 13, 2001 First Named Inventor Manolagas et al. Group Art Unit Attorney Docket Number ANA 1007 (06572.105018)	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT			
Sheet	11	of	12

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	KA	UESUGI Y. <i>et al.</i> , "Effects of Sex Steroids on the Development of Sexual Dimorphism in Mouse Innominate Bone," <i>Anat. Rec.</i> , (1992), Vol. 234, pp. 541-548.	
	KB	VANDERSCHUEREN, D. E., <i>et al.</i> , "Action of Androgens versus Estrogens in Male Skeletal Homeostasis," <i>Bone</i> , (1998), Vol. 23, pp. 391-394.	
	KC	VANDERSCHUEREN, D., <i>et al.</i> , "Bone and Mineral Metabolism in Aged Male Rats: Short and Long Term Effects of Androgen Deficiency," <i>Endocrinology</i> , (1992), Vol. 130, pp. 2906-2916.	
	KD	VANDERSCHUEREN, D., <i>et al.</i> , "Bone and Mineral Metabolism in the Androgen-Resistant (Testicular Feminized) Male Rat," <i>J. Bone Miner. Res.</i> , (1993), Vol. 8, pp. 801-809.	
	KE	WALK, S.F., <i>et al.</i> , "Roles of Lck, Syk and SAP-70 tyrosine kinases in TCR-mediated phosphorylation of the adapter protein Shc," <i>Eur. J. Immunol.</i> , (1998), Vol. 28, pp. 2265-2275.	
	KF	WATSON, <i>et al.</i> , "Membrane-Initiated Steroid Actions and the Proteins that Mediate Them," <i>Proc. Soc. Exp. Biol. Med.</i> , (1999), Vol. 220, pp. 9-19.	
	KG	WEINSTEIN, <i>et al.</i> , "ASBMR 21 st Annual Mtg.," <i>J. Bone Miner. Res.</i> , (1999), Vol. 14, S451 (Abstr).	
	KH	WEINSTEIN, R.S., <i>et al.</i> , "The Effects of Androgen Deficiency on Murine Bone Remodeling and Bone Mineral Density Are Mediated via Cells of the Osteoblastic Lineage*," <i>Endocrinology</i> , (1997), Vol. 138, pp. 4013-4021.	
	KI	WEINSTEIN, R.S. and S.C. MANOLAGAS, "Apoptosis and Osteoporosis," <i>Am. J. Med.</i> , (2000), Vol. 108, pp. 153-164.	
	KJ	WEINSTEIN, R.S., <i>et al.</i> , "Inhibition of Osteoblastogenesis and Promotion of Apoptosis of Osteoblasts and Osteocytes by Glucocorticoids," <i>J. Clin. Invest.</i> , (1998), Vol. 102, pp. 274-282.	
	KK	WHITE, R., <i>et al.</i> , "Structural Organization and Expression of the Mouse Estrogen Receptor," <i>Mol. Endocrinol.</i> , (1987), Vol. 1, pp. 735-744	
	KL	WINDAHL, S.H. <i>et al.</i> , "Increased Cortical Bone Mineral Content but Unchanged Trabecular Bone Mineral Density in Female <i>ERβ</i> ^{-/-} Mice," <i>J. Clin. Invest.</i> , (1999), Vol. 104, pp. 895-901	
	KM	WRENN, C.K. and KATZENELLENBOGEN, B.S., "Structure-Function analysis of the Hormone Binding Domain of the Human Estrogen receptor by Region-specific Mutagenesis and Phenotypic Screening in Yeast*," <i>J. Biol. Chem.</i> , (1993), Vol 268, pp. 24089-24098.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Submitted for form 1449/PTO				Complete if Known Application Number 09/880,710 Filing Date June 13, 2001 First Named Inventor Manolagas et al. Group Art Unit Attorney Docket Number ANA 1007 (06572.105018)	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT					
Sheet	12	of	12		

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	LA	YEH, S. <i>et al.</i> , "From Estrogen to Androgen Receptor: A New Pathway for Sex Hormones in Prostate," <i>Pro. Natl. Acad. Sci. U.S.A.</i> , (1998), Vol. 95, pp. 5527-5532.	
	LB	YOUNG, C.Y. <i>et al.</i> , "The Androgen Receptor of the Testicular-Feminized (Tfm) Mutant Mouse Is Smaller than the Wild-Type Receptor*," <i>Endocrinology</i> , (1989), Vol. 124, pp. 771-775.	
	LC	ZHANG, Z., <i>et al.</i> , "Activation of the p38 Mitogen-activated protein Kinase Pathway by Estrogen or by 4-Hydroxytamoxifen is Coupled to Estrogen Receptor-induced apoptosis*," <i>J. Biol. Chem.</i> , (2000), Vol. 275, pp. 479-486.	
	LD	ZOU, Y.R., <i>et al.</i> , "Cre-loxP-mediated gene replacement: a mouse strain producing humanized antibodies," <i>Curr. Biol.</i> , (1994), Vol. 4, pp. 1099-1103.	
	LE	KOUSTENI, <i>et al.</i> , "Nongenotropic, Sex-Nonspecific Signaling through the Estrogen or Androgen Receptors: Dissociation from Transcriptional Activity", <i>Cell</i> (March 9, 2001) Vol. 104, pp. 719-730.	

RECEIVED
MAY 01 2002
TECH CENTER 1600/2900

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.